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EXAMINER

HOANG, PHUONG N

ART UNIT PAPER NUMBER

2194

DATE MAILED: 07/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/828,562

Applicant(s)

GUNGABEESON, SATISH

Examiner

Phuong N. Hoang

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 April 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 - 26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1 – 26 are pending for examination.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claim 19 is not limited to tangible embodiments. The medium includes intangible embodiments (signal). As such, the claim is not limited to statutory subject matter and is therefore non-statutory.
3. Claim 20 is dependent claims of claim 19. They are rejected for the reason above.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
5. Claim 26 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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- a. The following terms lack proper antecedent basis:
 - i. The internet – claim 26;
 - ii. The proprietary screen definition - claim 26;
- b. The following language is not clearly understood:
 - iii. As to claim 26, at line 5, “a proprietary screen definition” should be “the proprietary screen definition”.
 - iv. As to claim 26, line 16, it is not clearly understood what “computer” referred to (i.e. is refers to a computer on line 15).
 - v. As to claim 26, at lines 29 - 30, it is not clearly understood what “no code changes are made programs ” (i.e. is it no code changes are made to the programs”.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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7. **Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Beauchamp, US patent no. 6,621,505.**

8. Beauchamp reference was cited in the last office action.

9. **As to claim 22**, Beauchamp teaches a computer server for accessing an application stored and executing on a computer, comprising the steps of:

(a) a central processing unit (CPU, col. 7 lines 7 - 30, and col. 30 lines 20 -25);

(b) a network interface to connect to at least one client over a network (modem or network interface card, col. 20 lines 20 - 30);

(c) a server instance to receive a request data from at least one client to access the non-modular application (legacy systems, col. 5 lines 5 – 10 and col. 9 lines 7 – 12) and transmit the request to the computer (servlet sends or receives the data, col. 20 lines 10 - 20), the request data being available for manipulation (manipulate the data, col. 20 lines 26 – 47);

(d) a server endpoint connection for transmitting and receiving real-time data (data, col. 5 lines 35 – 47 and col. 20 lines 2 – 67) to and from the computer on which the application is executing (TCP/IP, fig. 6 and col. 19 lines 10 – 30);

(e) a plurality of data objects (business objects, col. 5 lines 35 – 47 and col. 20 lines 2 – 67, and col. 21 lines 39 - 50) to be populated with the real-time data (provide access to back-end data) wherein the servlet (communicating through servlet) receives

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the real-time data from the application and populates the data objects with the real-time data; and

wherein the data objects are configured to be used by other applications on the network (business objects may be capable to of accessing both data and functionality in a legacy, ERP, Best of Breed, or other back-end systems, col. 20 lines 5 – 10).

Beauchamp does not explicitly teach the step of the real-time data being in a format suitable for display on a network.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to recognize that the business objects are used to access the real-time data; therefore, the real-time data itself is in the format not suitable for display on a network.

10. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Butts, US patent no. 5,754,830 in view of Zarrin, US patent no. 6,128,731.

11. Butts reference was cited by applicant in IDS filed on 1/24/02, and Zarrin reference was cited in the last office action.

12. **As to claim 25**, Butts teaches a method of interacting with a computer application, comprising the steps of:

(a) executing a legacy computer application in its native environment (application on legacy host system, col. 5 lines 1 – 14 and fig. 1);

(b) redirecting I/O requests from and responses to the legacy computer application from a client over the Internet without introducing changes to the code of the legacy computer application (the web/emulator server provide bi-directional requests between the legacy host system and a client over the web, fig. 1 and 3, and col. 3 lines 53 – col. 4 lines 15 and col. 1 – 13 and col. 6 lines 28 – 40).

Butts does not explicitly teach the step of wherein a state of the legacy computer is preserved between a session of the client and a later session of the client.

Zarrin teaches the step of wherein a state of the legacy computer is preserved between a session of the client and a later session of the client (keep track of their state as they are manipulated/accessed the IBM-compatible software application, col. 9 lines 38 – 51 and col. 12 lines 25 – 45).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Butts and Zarrin's system because Zarrin's maintaining client's states would maintain all data state while the system is redirecting I/O requests between two different platforms.

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13. **Claims 1 – 10, 12 – 15, 17 – 21, and 23 - 24 are rejected under 35 U.S.C.**

103(a) as being unpatentable over Beauchamp, US patent no. 6,621,505 in view of Zurick “Design Pattern” sections Adapter, Bridge, and Mediator.

14. Zurick reference was cited in the last office action.

15. **As to claim 1**, Beauchamp a method for executing a computer application installed on a computer, the method comprising the steps of:

(a) creating a servlet (servlet 212, col. 19 lines 48 - col. 20, and figures 7 and 8) instance in a server (web server 210, col. 19 lines 48 - col. 20, and figures 7 and 8) connected to the computer (figures 6, 7, and 13) on a first network;

(b) running the application (application, fig. 7 and 13) on the computer to generate dynamic data (data);

(c) intercepting and redirecting the dynamic data to a network publishing component on the computer (data is redirected to the interface, col. 6 lines 30 - 35 and col. 20 lines 5 - 15), network publishing component using broker, bridge, and interface (broker, bridge, and interface, col. 19 lines 4 – 10 and col. 20 lines 5 – 20).

(d) transmitting dynamic data to the servlet (communicating through the servlet in the server, col. 20 lines 10 - 20);

(e) creating data objects (create business objects, col. 5 lines 35 – 47 and col. 20 lines 2 – 67, and col. 21 lines 39 - 50) and populating the data objects with the dynamic data in the server (provide access to back-end data);

wherein the data objects are configured to be used by other applications on the first network (business objects may be capable to of accessing both data and functionality in a legacy, ERP, Best of Breed, or other back-end systems, col. 20 lines 5 – 10).

Beauchamp does not explicitly teach the step of the bridge, broker, and interface component using any design pattern, and transmitting data to the servlet from the network publishing component.

However, Beauchamp teaches the client is configured to render one or more standard screens as defined by a process received from a server (col. 9 lines 47 - col. 10 lines 15).

Zurich teaches the step of the component connecting to system using design pattern (adapter, bridge, and mediator sections).

It would have been obvious to one of ordinary skill in the art to combine the teaching the teaching Beauchamp and Zurich's system because Zurich's design patterns would provide a structural patterns to communicate between two incompatible interfaces from two platforms, and the dynamic data has to be sent from the interface to the servlet because servlet is the gateway interface for send and receive data over the network.

16. **As to claim 2**, Beauchamp teaches the steps of:

requesting the application from a client connected to a server over a second network (fig. 7 and 8);

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updating at least one network page with the dynamic data (the UPC manager 232 is responsible for producing request, col. 20 lines 26 - 67).

transmitting the updated network pages to the client (response request made by client, col. 20 lines 48 - 65).

17. **As to claim 3**, Beauchamp does not teach the step of wherein the first network is the Internet. However, Beauchamp teaches the second network is the Internet.

It would have been obvious to one of ordinary skill in the art to modify the Beauchamp's first network to be the Internet because it is popular for use nowadays.

18. **As to claim 4**, Beauchamp teaches the step of wherein the second network is the Internet (Internet, fig. 7 and 13).

19. **As to claim 5**, Beauchamp teaches the step of wherein the first network is selected from the group consisting of: an internal network, an Intranet, a LAN, a WAN, an internal bus, a wireless network (col. 3 lines 45 - 55 and col. 29 lines 20 - 40).

20. **As to claim 6**, Beauchamp teaches the step of wherein the second network is selected from the group consisting of: an internal network, an Intranet, a LAN, a WAN, an internal bus, a wireless network (col. 3 lines 45 - 55 and col. 29 lines 20 - 40).

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21. **As to claim 7**, Beauchamp teaches the step of converting the display files of the application to network pages capable of displaying dynamic data (mapping, col. 20 lines 35 - 45).

22. **As to claim 8**, Beauchamp teaches the step of wherein the network is based on a XML language (XML, col. 21 lines 11 - 38 and col. 24 lines 30 - 35).

23. **As to claim 9**, Beauchamp teaches the step of wherein the XML language is HTML (HTML, col. 21 lines 11 - 38 and col. 24 lines 30 - 35).

24. **As to claim 10**, Beauchamp does not explicitly teach the step of wherein the XML language is WML.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the XML language to be WML as a design choice.

25. **As to claim 12**, Beauchamp teaches the step of wherein the network pages are stored on the server (user process context is stored on the server, col. 20 lines 25 - 65).

26. **As to claim 13**, Beauchamp teaches the step of creating an I/O buffer for the dynamic data in the computer (col. 9 lines 47 - col. 10 lines 15).

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27. **As to claim 14**, Beauchamp does not teach the step of wherein the computer contains the server.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the computer including the server because it saves cost.

28. **As to claim 15**, Beauchamp teaches the step of creating a first endpoint connection (TCP/IP, col. 19) between the servlet instance and the network publishing component.

29. **As to claims 17 and 18**, Beauchamp does not teach the step of wherein said endpoint connection is data queue object or message queue.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the connection is the queue because queue can hold many data.

30. **As to claim 19**, Beauchamp teaches the step of a program product for use in a computer network for executing an application stored on a computer from a client, said computer program product comprising a signal-bearing medium carrying thereon:

(a) run an application in its native environment on the computer from a client (client run application to request data, fig. 7 and 13, and col. 5 lines 20 - 50 and col. 6 lines 45 - 48);

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(b) a plurality of network user interface pages to display the application's input/output data on the client (data is displayed on the browser or screen, col. 6 lines 30 - 35 and col. 20 lines 5 - 15), the request data being available for manipulation (manipulate the data, col. 20 lines 26 - 47);

(c) a data redirector to redirect the application's input/output data to network user-interface pages (data is redirected to the interface, col. 6 lines 30 - 35 and col. 20 lines 5 - 15), network publishing component using broker, bridge, and interface (broker, bridge, and interface, col. 19 lines 4 - 10 and col. 20 lines 5 - 20);

(d) a plurality of data objects corresponding to the network user interface pages to receive the application's input/output data (the UPC manager 232 is responsible for producing request, col. 20 lines 26 - 67);

(e) a servlet instance (servlet sends or receives the dynamic data, col. 20 lines 10 - 20);

(f) a network user agent to display the updated network user-interface pages on the client (client's browser, col. 6 lines 30 - 35 and col. 13 lines 25 - 35);

wherein the data objects are configured to be used by other applications on the first network (business objects may be capable to of accessing both data and functionality in a legacy, ERP, Best of Breed, or other back-end systems, col. 20 lines 5 - 10).

Beauchamp does not teach the step of the bridge, broker, and interface component using any design pattern, and an application invoker to start the application.

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Zurich teaches the step of the interface, bridge, or broker connecting to system using design pattern (adapter, bridge, and mediator sections).

It would have been obvious to one of ordinary skill in the art to combine the teaching the teaching Beauchamp and Zurich's system because Zurich's design patterns would provide a structural patterns to communicate between two incompatible interfaces from two platforms, and in order to run the application, the application has to be invoked.

31. **As to claim 20**, Beauchamp teaches the step of a screen definition converter to convert the input/output screen definitions of the application to the network user-interface pages (mapping, col. 20 lines 35 - 45).

32. **As to claim 21**, Beauchamp teaches a computer system for executing an application, comprising the steps of:

- (a) a central processing unit (CPU, col. 7 lines 7 - 30, and col. 30 lines 20 -25);
- (b) a main memory (main memory, col. 30 lines 20 - 30) connected to the central processing unit with a communication bus;
- (c) a data storage unit (data storage, col. 30 lines 20 - 30) connected to a data storage interface (ODBC, col. 5 lines 5 - 10 and 50 - 60) which is connected to said communication bus;

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(d) at least one input/output device (I/O devices, col. 30 lines 20 -30) to connected to a network interface (modem or network interface card, col. 20 lines 20 - 30) to an external computer network,

(e) an application stored in said main memory and capable of executing on said central processing unit (application, fig. 7 and 13, and col. 5 lines 20 - 50 and col. 6 lines 45 - 48);

(f) a network publishing component (browser screen, or interface, col. 6 lines 30 - 35, col. 20 lines 5 - 15, and col. 29 lines 20 - 47) using broker, bridge, and interface (broker, bridge, and interface, col. 19 lines 4 - 10 and ocl. 20 lines 5 - 20);

(g) a data redirector to redirect the application's dynamic data to the network publishing component (data is redirected to the interface, col. 6 lines 30 - 35 and col. 20 lines 5 - 15), the request data being available for manipulation (data is available for accessing, col. 5 lines 35 - 45 and col. 20 lines 26 - 47);

(h) an I/O buffer (data repository, col. 20 lines 30 - 45 and col. 22 lines 28 - 40) to store the redirected dynamic data (col. 29 lines 18 - 45),

wherein the data objects are configured to be used by other applications on the first network (business objects may be capable to of accessing both data and functionality in a legacy, ERP, Best of Breed, or other back-end systems, col. 20 lines 5 - 10).

Beauchamp does not explicitly teach the steps of the interface, bridge, or broker connecting to system using design pattern (adapter, bridge, and mediator sections), and the I/O devices are connected to communication bus.

However, Beauchamp teaches the step of I/O devices are connected to communication link to communicate to the network.

It would have been obvious to one of ordinary skill in the art to combine the teaching the teaching Beauchamp and Zurich's system because Zurich's design patterns would provide a structural patterns to communicate between two incompatible interfaces from two platforms, and the communication bus is one of the link to connect to the network so the client can communication to the server over the Internet.

33. **As to claim 23**, Beauchamp teaches the steps of a plurality of network display pages (browser screen, or interface, col. 6 lines 30 - 35, col. 20 lines 5 - 15, and col. 29 lines 20 - 47) wherein a servlet update the network user interface pages with the application's input/output data (servlet sends or receives the dynamic data, col. 20 lines 10 - 20).

34. **As to claim 24**, Beauchamp teaches a method comprising the steps of:

converting a plurality of display files of the application to a plurality of XML based network pages capable of displaying the application's dynamic data (prepare an XML request that incorporates the data that was entered on the screen, along with user's action, col. 24 lines 30 - 35);

(b) creating a servlet instance in a server connected to the computer on a network (servlet 212, col. 19 lines 48 - col. 20, and figures 7 and 8)

(c) requesting the application from a client connected to a server over the

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Internet (fig. 7 and 8);

(d) running the application on the computer in its native environment (fig. 7 and 13, and col. 5 lines 20 - 50 and col. 6 lines 45 - 48) ;

(f) creating an endpoint connection between the servlet instance and a network publishing component on the computer (TCP/IP, col. 19 lines 10 - 30);

(g) transmitting the dynamic data back and forth from the client to the application through the servlet instance (communicating through the servlet, col. 20 lines 10 - 20);

(h) creating data objects and populating the data object data (create business objects, col. 5 lines 35 - 47 and col. 20 lines 2 - 67, and col. 21 lines 39 - 50);

(i) updating at least one network page using the data object (update data source, col. 21 lines 39 - 50) the at least one network page using broker, bridge, and interface (broker, bridge, and interface, col. 19 lines 4 - 10 and col. 20 lines 5 - 20);

(j) transmitting network pages from the client over the Internet (fig. 7 and 13);

(k) transmitting network pages having responsive data from the client to server (fig. 7, 8, and 13 and col. 17 lines 35 - 65) for transmission as input data to the application,

wherein the data objects are configured to be used by other applications on the first network (business objects may be capable to of accessing both data and functionality in a legacy, ERP, Best of Breed, or other back-end systems, col. 20 lines 5 - 10).

Beauchamp does not explicitly teach the step of the steps of the interface, bridge, or broker connecting to system using design pattern (adapter, bridge, and mediator sections), and creating I/O buffer in the computer for the application's dynamic data.

However, Beauchamp teaches the step of the data repository may be holding data for all data elements and screens (col. 29 lines 18 – 48).

It would have been obvious to one of ordinary skill in the art to combine the teaching the teaching Beauchamp and Zurich's system because Zurich's design patterns would provide a structural patterns to communicate between two incompatible interfaces from two platforms, and the data repository would be the buffer for holding real-time data to be displayed.

35. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Beauchamp, US patent no. 6,621,505 in view of Zurick "Design Pattern" sections Adapter, Bridge, and Mediator, and further in view of in view of Hoffmann, US patent no. 6,728,769.

36. Hoffmann reference was cited in the last office action.

37. As to claim 11, Beauchamp and Zurick do not explicitly teach the step of wherein the network pages are JavaServerPages.

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Hoffmann teaches the step of JavaServerPages (JavaServerPages, col. 5 lines 40 - 60).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Beauchamp, Zurick, and Hoffmann's system because Hoffman's JavaServerPages is well known for controlling the appearance of the web pages.

38. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Beauchamp, US patent no. 6,621,505 in view of Zurick "Design Pattern" sections Adapter, Bridge, and Mediator, and further in view of Butts, US patent no. 5,754,830.

39. Butts reference was cited in the last office action.

40. As to claim 16, Beauchamp and Zurich do not teach the step of wherein said endpoint connection is a socket.

Butts teaches the step of the endpoint connection is a socket (TCP/IP socket, abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching Beauchamp, Zurick, and Butts's system

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because Butts' s TCP/IP connection is well known of transferring data on the TCP/IP network.

Allowable Subject Matter

41. Claim 26 is allowed.

Conclusion

42. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuong N. Hoang whose telephone number is (571)272-3763. The examiner can normally be reached on Monday - Friday 9:00 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571)272-3756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ph
July 21, 2005



SUE LAO
PRIMARY EXAMINER